

Application No.: 10/849,509

Docket No.: BAYERC 3.0-001 RE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:
Laurence C. Mudge

Application No.: 10/849,509

Group Art Unit: 1616

Filed: May 19, 2004

Examiner: A. N. Pryor

For: FUNGICIDAL COMPOSITIONS FOR THE
ENHANCEMENT OF TURF QUALITY

REPLY BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant files this Reply Brief pursuant to 37 C.F.R. § 41.41, in reply to the Examiner's Answer dated May 11, 2010. Pursuant to 37 C.F.R. § 41.47, Appellant filed on October 27, 2009, a separate paper entitled "Request For Oral Hearing" with the required fee, and Appellant hereby reaffirms that request.

The PTO's PAIR system erroneously labeled Appellant's "Second Amended Appeal Brief," filed on May 11, 2010, as a "Reply Brief," apparently because it was electronically clocked as received after the Examiner's Answer was entered in the system on that same date. The Second Amended Appeal Brief did not reply to the Examiner's Answer and therefore cannot be deemed a "Reply Brief."

Appellant informed Examiner Alton Pryor of this labeling error on May 21, 2010, which the Examiner confirmed in an interview summary form dated June 11, 2010. Since the Examiner's Answer responds only to the (First) "Amended Appeal Brief", filed on December 17, 2009, only the (First) "Amended Appeal Brief" ("Am. Appeal Br.") will be referenced herein.

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES	4
I. STATEMENT OF ADDITIONAL FACTS	5
II. ARGUMENT	5
A. The Failure Of The Examiner To Give The Legally Required Weight To The "Synergistic" Limitation In All Appealed Claims Is A Fatal Defect In Both Obviousness Rejections Requiring Their Reversal	6
1. The Examiner Commits Legal Error In Disregarding The "Synergistic" Limitation Of The Claims On The Grounds That Appellant Failed To Present Evidence Of Synergism Commensurate In Scope With The Claims	6
2. The Examiner's Repeated Suggestions For Tests Are Inconsistent With The Examination Of This Reissue Application	10
3. The Examiner Has Overlooked Examples In The Mudge '804 Patent Specification That Illustrate The Synergistic Improvement Provided By Phthalocyanine Combined With A Phosphorous Fungicide <i>Without Mancozeb Being</i> <i>Present</i>	12
4. The Examiner's Answer Does Not Show Any Prior Art Describing Or Suggesting That Phthalocyanine Would Have A Synergistic Effect With A Phosphorous Acid Fungicide	16
a. Contrary To The Examiner's Assertions, The Lucas Patent Does Not Compare The ALIETTE™/ FORE Formulation Including Pigment With ALIETTE™/Mancozeb Formulations Lacking Pigment	16
b. The Examiner Ignores The Negative Teachings Of The Lucas And Collins References That Phthalocyanine Is Merely A Colorant And Is Not A Synergist	18
III. CONCLUSION	20

TABLE OF AUTHORITIES

	<u>Page</u>
Cases	
<i>Geneva Pharms., Inc. v. GlaxoSmithKline PLC,</i> 349 F.3d 1373, 68 U.S.P.Q.2d 1865 (Fed. Cir. 2003)	9

I. STATEMENT OF ADDITIONAL FACTS

Although not believed to be "additional" facts, the only factual information herein, not actually mentioned in the First Amended Appeal Brief is a discussion of Treatment/Examples appearing in the Mudge specification, which are discussed at pages 13-15, *infra*. Since this information is taken from the Mudge specification, it is part of the original record.

II. ARGUMENT

The Examiner's Answer maintains the same two grounds for rejection under 35 U.S.C. § 103 that were stated in the Final Rejection dated July 8, 2009 ("OA"), and bases the rejections on essentially the same reasoning, citations and explanations.

The Examiner's Answer ignores the expressly stated claim limitation of synergistic effectiveness when comparing the claimed subject matter to the prior art, on the grounds that the Examiner finds an insufficient showing in the record to establish the synergistic effectiveness for the claims. This becomes a basis to reverse the final rejection because the Examiner has identified no teaching or suggestion in the prior art of the claimed synergistic effects.

In this case the law of claim construction that requires the appealed claims to be limited and construed to cover only

embodiments that meet the "synergistic" limitation that is recited in the claims. It is legal error for the Examiner to disregard the synergistic claim limitation in comparing the claims with the prior art under 35 U.S.C. § 103. The absence of prior art teachings of the claimed synergism alone dictates reversal of the Final Rejection and the expedited reissuance of the Mudge '804 Patent.

Additionally, the Examiner fails to overcome the other deficiencies in the asserted obviousness rejections that are identified in the Amended Appeal Brief, and those grounds for reversal are incorporated herein as if repeated.

A. The Failure Of The Examiner To Give The Legally Required Weight To The "Synergistic" Limitation In All Appealed Claims Is A Fatal Defect In Both Obviousness Rejections Requiring Their Reversal

1. The Examiner Commits Legal Error In Disregarding The "Synergistic" Limitation Of The Claims On The Grounds That Appellant Failed To Present Evidence Of Synergism Commensurate In Scope With The Claims

The Examiner's Answer, like the Final Rejection, acknowledges that all of the pending/appealed claims "are drawn to a synergistic fungicidal composition" and "a method of applying said composition to turfgrass to combat fungi growth and enhance turfgrass quality." (Ex. Ans. 15.). The Examiner also finds "the term 'synergistic' used in the claims to describe the combined

activity of said phthalocyanine and fosetyl-Al or phosphorous compound. . . ." (Ex. Ans. 16.)

As shown in the Amended Appeal Brief, the claim limitation "synergistic effective amount" is an element of the claims that must be described in the prior art or specifically suggested in the prior art to render the claims obvious over that prior art.

All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); M.P.E.P. § 2143.03. All claim limitations must be considered, even if they are indefinite under 35 U.S.C. § 112, second paragraph, or unsupported by the specification under 35 U.S.C. § 112, first paragraph. See M.P.E.P. § 2143.03 and cases cited therein.

. . . .

The Federal Circuit has held that the claim language "synergistically effective amount" is a claim limitation. *Geneva Pharms., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1384, 68 U.S.P.Q.2d 1865, 1873 (Fed. Cir. 2003) ("By its terms, a 'synergistically effective amount' is a functional limitation. As explained in *In re Swinehart*, 439 F.2d 210, 213, 169 U.S.P.Q. (BNA) 226, 229 (C.C.P.A. 1971), a functional limitation covers all embodiments performing the recited function.").

(Am. Appeal Br. 17-18, 19.) The Examiner's Answer fails to address or distinguish this controlling case authority.

The Examiner's Answer states "that weight was given to the term 'synergistic' recited in the instant claims." However, the Examiner made the express determination that the term

"synergistic" could be disregarded when considering the prior art because Applicant did not come forward with sufficient evidence to establish synergism for the claims. This finding is repeated no fewer than seven times in the Examiner's Answer.¹

For example, in the second obviousness rejection based on the combination of the Guillino, Fenn, Kato, and Nagashima references the Examiner makes the explicit finding that the "combination of references do not disclose that the dye [phthalocyanine] and phosphorous compound yield synergism." (Ex. Ans. 17.) With this finding, the Examiner should have withdrawn the obviousness rejection because the claims are limited by the "synergistic" limitation.

Instead, the Examiner maintained the second obviousness rejection, finding that the synergistic limitation of the claims can be ignored because the Applicant has not submitted sufficient evidence to establish synergism for the claims, which do not include a mancozeb component:

With respect to the term "synergistic" used in the claims to describe the combined activity of said phthalocyanine and fosetyl-Al or phosphorous compound, the Examiner would like to point out that all of the

¹ See Ex. Ans. at: parag. Bridging pp. 6-7; 1st parag. p.8; 1st full parag.p.9; parag. Bridging pps.10-11; p.11, last 4 lines; p.16 ll 12-19; and p.17, ll. 7-11

examples in the specification and declarations² showing synergism include mancozeb. The Examiner further points out that Applicant does not provide examples showing synergism for a combination comprising only phosphorous acid or fosetyl-Al plus a phthalocyanine lacking the fungicide (mancozeb). The claims are not commensurate in scope with the examples provided in the declaration."

(Ex. Ans. 16 11.12-19.)

The Examiner's legal error is that the claims cover only embodiments that meet the "synergistic" limitation, no matter how much evidence is presented to the USPTO. *Geneva Pharms., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1384, 68 U.S.P.Q.2d 1865, 1873 (Fed. Cir. 2003).

With respect to the first obviousness rejection (based on *Lucas*, *Collins* and *Rohm and Haas*), the Examiner also accorded no significance to the synergistic claim limitation, with the Examiner again arguing that Appellant presented no evidence of synergism for the claimed subject matter. Therefore, in regard to both obviousness rejections, the Examiner asserts that the claims are not commensurate in scope with the Examples in the specification showing synergistic results, because the Examples require mancozeb, which is not recited in the appealed claims.

² The Examiner's reference to "declarations" is not clear. The only declarations made of record in the reissue application are copies of declarations by Lucas and Mudge, originally filed in the prosecution of the Lucas '661 Patent.

Failure to submit test results or evidence of synergism is not a legal basis to disregard the synergistic claim limitation in the required analysis for determining obviousness. Such an argument might apply if there were no applicable claim limitation, and the Applicant relied solely on asserted tests or a showing of synergism to establish that all embodiments within the claims possess the synergistic property. Here, the claim includes the synergistic functional language which limits the claims to only those embodiments that exhibit the synergistic properties. The failure of the Examiner to find any suggestion in the prior art that phthalocyanine would provide a synergistic improvement in the effectiveness of a fosetyl-Al or phosphorous acid-based fungicide when applied to turfgrass is fatal to the obviousness rejections, which should therefore be reversed.

**2. The Examiner's Repeated Suggestions
For Tests Are Inconsistent With The
Examination Of This Reissue Application**

The Examiner's repeated suggestions for submission of tests evidencing synergism for the claims are not consistent with the record in this reissue application.

First, the synergistic claim limitation was present in the original claims granted in the '804 Patent. In this reissue application the claims have never been rejected under 35 U.S.C.

§§ 101 or 112, despite almost six (6) years of examination, including six (6) separate non-final office actions. Therefore, the terminology "synergistic effective amount" in the claims does not cause the claims to be (i) indefinite; (ii) based on a disclosure insufficient to teach a person skilled in the art how to practice the claims; or (iii) lacking a written description in the specification. Therefore, there appears to be no basis for the Examiner to even suggest some need for the Appellant to come forward with evidence of synergism to substantiate the claim limitation.

Second, after the office action of February 25, 2009, Applicant's counsel conducted a personal interview with Examiners Alton Pryor and Bennett Celsa, of record herein. The Examiners stated that there was no need to submit comparative tests or any other showing in a declaration to substantiate the claim limitation "synergistic effective amount." Applicant confirmed this representation by the Examiners in writing in the next paper filed by applicant on April 24, 2009, at pages 5-6.

3. **The Examiner Has Overlooked Examples In The
Mudge '804 Patent Specification That Illustrate
The Synergistic Improvement Provided By
Phthalocyanine Combined With A Phosphorous
Fungicide Without Mancozeb Being Present**

The Examiner repeatedly asserts in the Examiner's Answer that Examples in the Mudge specification only establish that phthalocyanine is a synergist in a composition containing both mancozeb and a phosphorous compound fungicide, but the Examiner finds no example in the Mudge specification illustrating phthalocyanine to be a synergist in a composition of a phosphorous fungicide without mancozeb being present. The following excerpt illustrates the point:

The Examiner argues that instant specification shows only synergistic results for compositions comprising mancozeb plus instant phosphorous compounds plus instant phthalocyanine compounds."

(Ex. Ans. 17.)

The synergistic results mentioned by the Examiner for the combination of phthalocyanine, mancozeb and a phosphorous fungicide (e.g., fosetyl-Al in Aliette), are shown in several treatments reported in Tables 1 and 2 of the Mudge '804 Patent specification. The reported synergistic results are based on the observed improved turf quality shown after treatment with a formulation containing a phthalocyanine pigment when compared to a

formulation without the pigment. (Mudge '804 Patent col.8 11.30-67.)

According to the Mudge '804 Patent specification, improved turf quality is an ultimate objective of fungus disease control. It is shown by evaluating new turfgrass growth for turf uniformity and density which is accompanied by a darker green color in the new growth, all reflecting healthier growing turfgrass. As stated in the Mudge '804 Patent specification: "Turf quality and turf color ratings were used as an indicator of the health of the bentgrass and the amount of decline associated with crown and root rot." (*Id.* col.8 11.23-26.)

Test results from Tables 1 and 2 of the specification illustrating synergism in formulations containing mancozeb, Aliette and a phthalocyanine are reproduced below in the Table A, by comparing the following treatments:

- Treatment 4 (containing blue pigment in FORE) has superior turf quality compared to Treatment 7, without any pigment;
- Treatment 8 has superior turf quality compared to Treatment 5 (where Aurora green dye is not a phthalocyanine);

- Treatment 10 (mancozeb + Exp 10622, which includes blue phthalocyanine pigment³) has superior turf quality compared to Treatments 5 and 7 (neither containing a phthalocyanine pigment).

(Mudge '804 Patent col.8 ll.30-67.)

TABLE A

MUDGE EXAMPLE	FORMULATIONS WITH MANCOZEB	TURF QUALITY
Table 1, Treatment 4	Aliette + FORE (Aliette+mancozeb+pigment)	7.5
Table 1, Treatment 7	Aliette + MANZATE Aliette+mancozeb,no pigment)	6.8
Table 2, Treatment 8	Aliette + FORE (Aliette+mancozeb+pigment)	7.8, 8.0
Table 2, Treatment 5	Aliette + mancozeb + Aurora Green Dye (no pigment)	7.0, 7.3
Table 2, Treatment 10	EXP 10622 (defined as Aliette + Blue Pigment) + Mancozeb	7.5, 8.0

However, the Examiner has overlooked Treatments 6 and 9 in Table 2 of the specification, which describe two phosphorous-containing fungicide compositions that fail to contain mancozeb. Those Treatments are summarized in Table B, Below:

³ Treatment #10 is described in the text of the Mudge specification as follows: "The combination of the experimental formulation of ALIETTETM and the blue pigment (EXP 10622) + mancozeb (treatment #10)" Mudge '804 specification at col. 8/63-64. Since EXP 10622 is ALIETTETM + blue pigment, Table 2 of the Mudge specification describes Treatment no. 10 simply as EXP10622 and mancozeb.

TABLE B

MUDGE EXAMPLE	FORMULATIONS WITHOUT MANCOZEB	TURF QUALITY
Table 2, Treatment 6	Aliette	5.3, 6
Table 2, Treatment 9	EXP 10622 (defined as Aliette+ Blue Pigment)	5.8, 6.5

Treatment 6 in Table 2, consists of ALIETTE™, which contains the phosphorous fungicide "fosetyl-Al," and no mancozeb, and no phthalocyanine pigment. Treatment 9 in Table 2 contains "EXP 10622," which consists of ALIETTE™ combined with a blue phthalocyanine pigment and without any mancozeb. (See n.3, *supra*.) As shown by the results above, Treatment 9 containing fosetyl-Al and the blue phthalocyanine pigment, produced superior turf quality compared to Treatment 6 in which only fosetyl-Al, without the phthalocyanine was applied.

Therefore, contrary to the Examiner's findings regarding the specification, a comparison of Treatments 6 and 9 of Table 2, does illustrate that phthalocyanine contributes beyond mere color, to synergize a phosphorous fungicide to provide superior turf quality in new turf growth.

4. The Examiner's Answer Does Not Show Any Prior Art Describing Or Suggesting That Phthalocyanine Would Have A Synergistic Effect With A Phosphorous Acid Fungicide

a. Contrary To The Examiner's Assertions, The Lucas Patent Does Not Compare The ALIETTE™/FORE Formulation Including Pigment With ALIETTE™/Mancozeb Formulations Lacking Pigment

At page 4 of the Examiner's Answer, the Examiner repeats the same error stated at page 2 of the OA, i.e., that the Lucas '661 Patent describes a comparative showing of mancozeb formulations with and without Pigment Blue 15:

The Lucas ['661 Patent] ALIETTE and FORE formulations comprising the above ingredients realized significant improvements in turf color as compared to other Mancozeb containing formulations lacking Pigment Blue 15. See col. 5-6.

(Ex. Ans. 4.)

The Examiner's Answer at page 10 seems to refer to this issue, but it fails to address the error in attributing to the Lucas '661 Patent examples of various mancozeb formulations that are only described in the present Mudge specification. The Lucas '661 Patent does not contain the above-quoted disclosure. The entire '661 Patent describes only one source of mancozeb, the mancozeb in the FORE® product from Rohm & Haas. (See '661 Patent col.4 ll.60-61.) The disclosure of the testing of different formulations of mancozeb, some without Pigment Blue 15, is

described in the present specification. (Mudge'804 Patent col.9 11.26-30.) Therefore, the Examiner has erroneously attributed to the prior art Lucas '661 Patent, the examples and discovery set forth in the present Mudge specification. The Examiner's findings regarding the content of the Lucas '661 Patent are clearly erroneous.

At page 8 of the Examiner's Answer, the Examiner also notes that the relative amounts of phosphorous compound and phthalocyanine compound in the FORE + ALIETTETM mixture of the Lucas '661 Patent are similar to the relative amounts of these components in the appealed claims. The Examiner seems to suggest that if synergism is present in the presently claimed compositions, then synergism must have been inherently present in the Lucas patent's FORE + ALIETTETM mixture. This reasoning is erroneous for several reasons.

First, inherency is a doctrine that is applicable in an anticipation rejection under 35 U.S.C. § 102, where the prior art describes the same product later claimed. Here, a presently claimed property, not reported in the prior art, cannot be asserted to be inherently present in the prior art composition because the prior art composition is not the same as the presently claimed composition.

Second, the Examiner's "inherency" argument based on compositions that differ in the presence or absence of mancozeb, is inconsistent with the Examiner's factual finding that Examples in the Mudge specification showing synergism for Aliette + mancozeb + phthalocyanine cannot be evidence of synergism for a composition failing to contain mancozeb.

Third, as shown below, both the prior art Lucas '661 and Collins patents describe phthalocyanine as merely a colorant and not a synergist or active ingredient. The prior art describes only mancozeb and phosphorous compounds to be active ingredients and Lucas '661 only describe mancozeb and fosetyl-Al to be synergists when present together.

b. The Examiner Ignores The Negative Teachings Of The Lucas And Collins References That Phthalocyanine Is Merely A Colorant And Is Not A Synergist

The Lucas '661 Patent nowhere makes mention of a phthalocyanine or any properties attributed to such a compound. The Lucas '661 Patent uses the commercial product FORE® as the source for mancozeb in the tests reported in the examples. The Lucas '661 Patent finds "synergism" but only in the combination of mancozeb with fosetyl-Al, the aluminum salt of the ethyl ester of phosphorous acid, the active ingredient in ALIETTE™. The claims

and specification of the Lucas '661 Patent only describe mancozeb and fosetyl aluminum as synergistic agents. Based on the Lucas '661 Patent, phthalocyanine contributes nothing to the composition applied to turf grass. Therefore, while the Lucas '661 Patent observes synergistic properties, it attributes them to materials other than phthalocyanine, teaching away from phthalocyanine as a synergistic contributor, or even an active ingredient.

Collins also teaches phthalocyanine only as a colorant and as not being an ingredient that provides synergistic properties. Collins identifies various "synergists" that can be combined with a phosphorous acid type fungicide, but expressly excludes phthalocyanine and other pigments from the list of "synergists."

Combining Lucas '661 and Collins thus establishes the unobviousness and the unexpectedness of phthalocyanine as a synergist for a phosphorous fungicide and confirms the patentability of the appealed claims.

III. CONCLUSION

For the reasons stated in the Amended Appeal Brief and those stated herein, Appellant's respectfully request that the final rejection be reversed and that the '804 Mudge Patent be reissued as soon as possible.

Dated: July 9, 2010

Respectfully submitted,

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